

YOUR APPLICATION, OUR SOLUTIONS

*Save energy and costs with
the Gates Power Transmission programme*



The world's best belt drive systems and a whole company behind them

Industrial power transmission drives do not always run without problems. Chain drives require regular lubrication. Belts not properly installed might fail prematurely, and production standstills, maintenance costs can be sky-high!

Does this sound familiar? Call on Gates.

Whether it's a replacement belt, a drive system upgrade or a problem to be solved, Gates provides more quality products, expert support and productivity improvement tools than anybody in the business.

Gates, the world's leader in synchronous belt technology, has a long tradition of innovation and market leadership. Our experience in power transmission goes back to 1911. Since then we have been developing a complete and high quality product line. That's why we now have the right product for every industry and every application. Gates offers the industrial market a complete range of high performance V-belts, synchronous belts, tensioners,

pulleys, flexible couplings and complete drive systems. The industrial application range of Gates' power transmission products extends from minimum drives on computer printers or other high-precision tools to industrial compressors and agricultural harvesters.

In addition, we offer an unsurpassed customer service. Indeed, at Gates you do not buy just a product, you get a complete service and support package. Gates sales and maintenance teams are always available to answer any question and to support you with maintenance and cost and energy savings.

In short, you can rely on Gates to help you save time and money.

Gates premium products

Quad-Power® II
Gates' most powerful raw edge, narrow-section V-belt

Poly Chain® GT2
Polyurethane belt for highest torque drives

PowerGrip® GT3
Synchronous belt for a wide variety of compact and high-speed drives

EuroGrip®
Flexible couplings

Polyflex® JB™
Polyurethane multiple V-belt for high power capacity in small spaces

Quad-Power® II PowerBand®
Multiple V-belt for drives subjected to pulsating loads



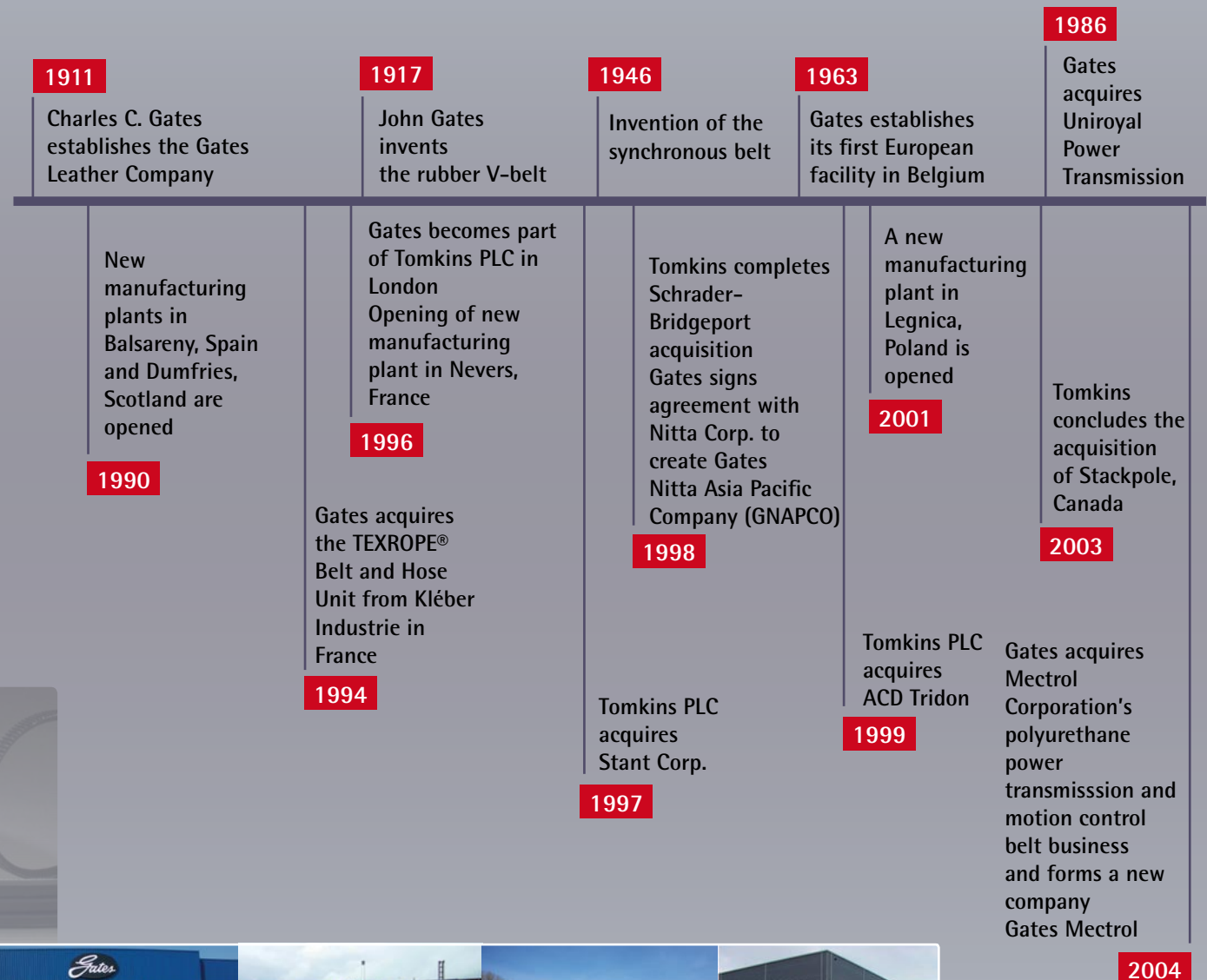
Gates and Tomkins: global scale, traditional strengths

The Gates Corporation, with worldwide headquarters in Denver (USA), is a world-leading manufacturer of hi-tech rubber belts and hoses for industrial, hydraulic, agricultural and automotive applications. Gates is synonymous with high-quality products and services that solve problems and add value. In 1996, the Gates

Corporation became part of Tomkins PLC, a global engineering and manufacturing group. This market and technical leader is structured into two specific business groups "Building Products" and "Industrial and Automotive", of which The Gates Corporation is part. Tomkins PLC employs over 40,000 people worldwide.

Gates: a timeline of achievement

From what was once a small company, the Gates Corporation grew out to become the world's leading manufacturer of rubber belts and hoses. Gates' history goes back to 1911.



Gates V-belts and synchronous belts for every industry and every application

Gates' vast range of synchronous and V-belts is ideal for all types of industries and all types of applications. Each and every one of Gates' industrial belts ensure optimisation of your drive and energy and cost savings.

The grid below just gives an indication of the possibilities. Contact a Gates representative for more customised solutions.

Industries Applications	Car assembly plants	Wood, pulp and paper	Food, pharmaceutical and beverage	Chemical and petrochemical	Aggregates
HVAC	Poly Chain® GT2 PowerGrip® GT3	Poly Chain® GT2	Poly Chain® GT2 Gates Mectrol polyurethane line	PowerGrip® GT3 antistatic	Poly Chain® GT2
Conveyor systems	PowerPainT™	Poly Chain® GT2	Poly Chain® GT2	PowerGrip® GT3 antistatic	Super HC®
Pumps and compressors	Quad-Power® II Poly Chain® GT2 PowerGrip® GT3	Quad-Power® II Poly Chain® GT2 PowerGrip® GT3	Quad-Power® II PowerGrip® GT3	Quad-Power® II PowerGrip® GT3 antistatic	Quad-Power® II Poly Chain® GT2 PowerGrip® GT3
Material handling	Quad-Power® II PowerBand®	Quad-Power® II PowerBand®	Quad-Power® II PowerBand®	Quad-Power® II PowerBand®	Quad-Power® II PowerBand®
Process equipment	Poly Chain® GT2 Polyflex® Micro-V®	Poly Chain® GT2 Polyflex® PowerGrip® GT3	Poly Chain® GT2 Polyflex®	PowerGrip® GT3 Quad-Power® II	Poly Chain® GT2 Polyflex® PowerGrip® GT3



Gates' support is there when you need it

At Gates, you do not buy just a product, you get complete, high performance and customised drive design solutions. When you choose Gates, you get more than the strongest, most advanced Power Transmission product line. Behind our

leading industrial products is an entire company of professionals, armed with solutions. Gates offers the kind of support that leads to trust and value: a complete service package and what is especially important, close to you.

Some major advantages of our service are:

- An international coverage: Gates' sales engineers and sales coordinators provide solutions wherever you are located
- A strong distributor / partner network: Gates' distributors are strategic business partners who are accurately trained for servicing end user needs and are located wherever you need them
- Dedicated technical Gates support team: Gates offers first class technical and engineering support
- Excellent understanding of customers' needs: Gates' engineers design technically advanced drive systems tailored to your specific needs
- Measurable cost savings: Gates' engineers use the Gates cost saving programme to provide the most cost efficient belt drive and to eliminate costs
- Measurable improvements in performance and reliability: a partnership with Gates will improve the performance and reliability of your machines and equipment
- Regular plant surveys: Gates' distributors and application engineers conduct performance evaluations and develop a maintenance plan for energy cost savings
- Gates' presence at the source closes the loop: industrial designers for original equipment rely on and cooperate with Gates design engineers to develop the most advanced drive systems for your processes.



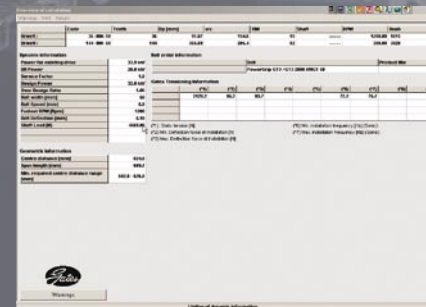
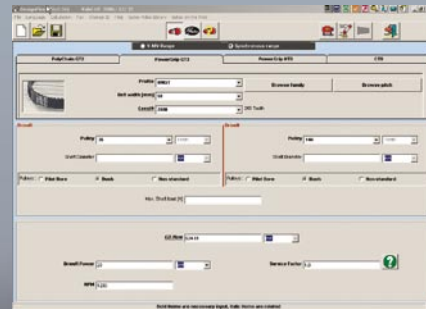
Save energy and costs with Gates' Cost Saving programme!

The Gates Cost Saving programme clearly demonstrates the advantages of Gates' belt drive systems and reinforces Gates' value added services. The energy saving calculations are based on the best information available and represent the typical saving that can be expected from correctly installed drive systems.

Gates' technical and commercial teams are available to perform plant surveys on customers' premises to conduct performance evaluations and develop a maintenance recommendation plan for energy cost savings.

This is how it works:

- We evaluate current belt drive efficiencies using Gates' DesignFlex® and Cost Saving Calculation Tool
- We calculate energy savings gained by replacing chain or problem drives with energy-efficient ones
- We identify problem drive applications and develop a programme to increase their reliability
- We specify reliable products that enhance productivity and improve equipment reliability
- We determine ways to reduce maintenance costs (retensioning, lubrication, ...)
- We develop a preventive maintenance programme to maximise the life of all belt drives in your facility



Cost saving example

A blower will be driven by a 75 kW motor. Duty will be 24 hours/day, 7 days/week.

Existing V-belt drive: SPA 2057

- DriveR: 160 mm
- DriveN: 150 mm
- Replacement frequency: every two years
- Total first year expenditure: € 35,542.69

Proposed synchronous belt drive: Poly Chain® GT2 14MGT-3500-37

- DriveR: 44 teeth
- DriveN: 50 teeth
- Replacement frequency: every three years
- Total first year expenditure: € 32,991.21

Total savings after 3 years: € 8,913

Tools to make the job faster, better at lower cost

Whether driven by people, equipment or technology, Gates provides a wide range of tools to optimise belt drive

performance and deliver the best value to customers in return for their investment in Gates products.

Measurement tools

Sonic tension meter

- Simple and extremely accurate tension measurement by analysing sound waves from the belt through the sensor
- Stores weight, width and span constants for up to twenty different drive systems
- Auto gain adjustment function cancels out background noise automatically
- Shuts off automatically after ten minutes of inactivity, making it an energy-saving device
- Measurement range: 10 Hz to 5,000 Hz

Laser alignment device

- Accurate and fast method to measure misalignment
- For both V-belts and synchronous belts
- Shows parallel and angular misalignment between the pulleys
- For both horizontal and vertical shaft machines
- Also suitable for non-magnetic pulleys

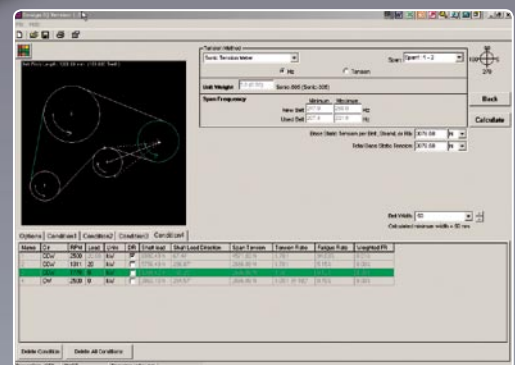
Design tools

DesignFlex®

Gates' distributors may calculate your application by using DesignFlex®, Gates' Windows-based multilingual software programme. The programme can be downloaded from Gates' website at www.gates.com/ www.gates.eu. It offers a step-by-step drive calculation procedure for both V-belts and synchronous belts based on the criteria and/or limitations specified by the user.

Design IQ

If your application cannot be designed with the aid of Gates' design manuals or the DesignFlex® software, you can always contact Gates' distributors. They use Design IQ, a very powerful software programme allowing them to calculate multiple pulley drives for the most diverse complex duty cycles.



Preventive maintenance

The potential for long service life is built into every Gates belt. When coupled to a regular maintenance programme, your belts and drives will run trouble-free for a long period of time. That is why Gates has created a comprehensive and effective maintenance programme

to save you time and money. Preventive maintenance manuals are available and Gates' technical engineers can give training sessions at your premises, covering all aspects.

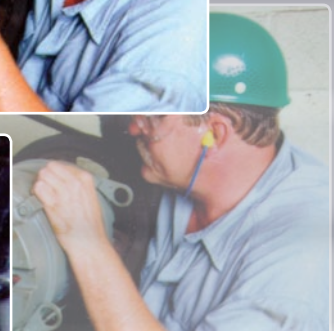
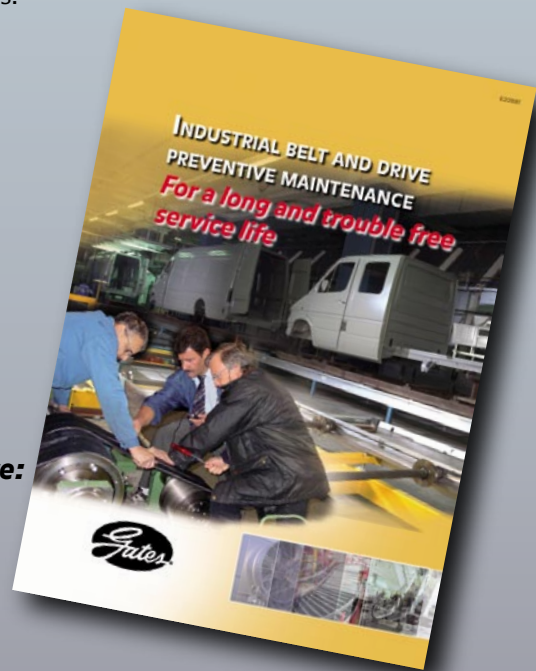
- A safe work environment
- Preventive "routine" maintenance
- Drive shutdown and thorough inspection
- Belt and pulley installation
- Belt identification
- Belt drive performance evaluation
- Troubleshooting guide
- Troubleshooting methods and tools
- Belt storage

The main purposes of preventive maintenance programmes are:

- Improve drive efficiency
- Lower belt operating costs
- Improve energy efficiency
- Reduce maintenance costs
- Enhance productivity

If properly installed and maintained, a Gates industrial belt drive system offers:

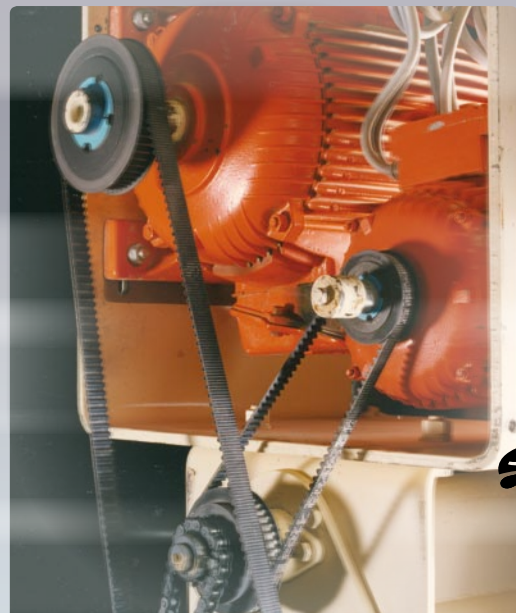
- Reduced downtime
- Reduced overall drive cost
- Reduced drive package size
- Increased component life
- Increased performance
- Energy savings
- Reduced acquisition costs
- Increased drive design options



Successful conversions

Industry Food, pharmaceutical and beverage

Problem description	The customer's screw conveyors were originally equipped with chain drives. The company is a leading brand in frozen foods and has regular cleaning requirements. This regular cleaning has a negative influence on chain drives as it accelerates the corrosion process on the chain drives that drive their equipment due to the lubrication being partially or totally washed away and the cleaning products reacting with the metal. The re-lubrication after each cleaning is time consuming and potentially unhygienic and expensive.
Problem drive	Roller chain: 3/4" simplex chain DriveR: 19 teeth sprocket DriveN: 61 teeth sprocket
Solution drive	The roller chain was replaced with a Gates Poly Chain® GT2 belt drive. Poly Chain® GT2 provides greater load-carrying capacity and performance than any other belt drive system. They are ideal for both low-speed reducer applications and high-speed motor applications. DriveR: 14M 28S 20 DriveN: 14M 80S 20 Belt: PCGT2 14M 1750 20
Savings of the conversion	Unlike the rough-running chain drive it replaced, the Poly Chain® GT2 drive runs smoothly to maximise performance. Poly Chain® GT2 hardly requires any maintenance as no lubrication or tensioning is required. And because it never needs lubrication, the Poly Chain® GT2 belt drive keeps the work area clean and contaminant free. In addition the Poly Chain® GT2 belt is resistant against aggressive influences, such as dust, oil and chemicals. Even at high speeds Poly Chain® GT2 runs at a lower noise level and the belt drive provides substantial savings in weight and space. Poly Chain® GT2 drives are so efficient that in many cases, they can pay for themselves in less than a year.



Industry Car assembly plants

<p>Problem description</p>	<p>The assembly machine at this site was originally equipped with SPB 3350 V-belts of different brands. The company is a leading car manufacturer. The launch of a new range requires non-stop production all year long. One minute of downtime causes a loss of production of one vehicle. A key issue of the changes was to enhance the continuous efficiency of the drives on the machinery and to reduce unwanted maintenance operations because of retensioning.</p>
<p>Problem drive</p>	<p>V-belt: SPB 3350 DriveR: 5SPB170 DriveN: 5SPB560</p>
<p>Solution drive</p>	<p>PowerGrip® GT3 DriveR: 34-14M 55 DriveN: 112-14M 55 Belt: PGGT3 3360 14MGT 55</p>
<p>Savings of the conversion</p>	<p>PowerGrip® GT3 belts not only provided the required solution for less maintenance and continuous production. They also offered a more economical solution than the existing V-belts and contributed to the performance of the drives due to the smooth running characteristics. After one year with the new PowerGrip® GT3 not one unscheduled equipment downtime occurred.</p>



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